MS in Animal Science Semester Final Examination
January to June Semester 2017
Sub: Feed Processing and Evaluation (FPE- 601)
Full Marks: 40; Time: 2 Hours

Answer **any four** questions from the following. Figures in the right margin indicate full marks.

1. a) What is meant by the term feed processing? Briefly discuss the different forms of feed. 4

   b) Briefly discuss the changes of the nutritional values of processed feed for cattle by chemical treatment. 6

2. a) What is fermentation? Discuss primary & secondary fermentation in ruminant. 4

   b) Calculate the DM digestibility of Napier grass having the following information: Feed offered 22 kg, Refusal 4 kg and Faeces outgo 8 kg as fresh basis (DM of feed 20%, refusal 22%, faeces 15%). 6

3. a) What is ration? Discuss briefly about area specific mineral mixture. 4

   b) Formulate a daily ration chart for a dairy cow using available feed ingredients which having body weight 300 kg offering milk 15 litres per day. 6

4. a) Discuss how the composition of milk varied upon the offered feed. 4

   b) What is VFA? Discuss the VFA produced with their fate in ruminant. 6

5. a) Briefly discuss the possible ways of feeding urea to a ruminant. 4

   b) What do you mean by digestibility? Briefly discuss the factors that affect digestibility of a feed. 6

6. Write short notes (any 4) on: 4x2.5 = 10

   a) Apparent vs true digestibility,
   b) UDP vs RDP,
   c) Calf feeding,
   d) Proximate analysis scheme,
   e) Feeding standard,
   f) Feed additives

Department of Animal Science and Nutrition
Chittagong Veterinary and Animal Sciences University
MS in Animal Science
Semester Final Examination (January-June 2017)

Course Title: Large Ruminant Production Systems (Theory)

Course code: LRP-601, Full marks: 40, Time: 2 hours

Figures in the right margin indicate full marks. Answer any four (4) questions. There is no room to consider fragmented answers!

1. Why small scale sustainable dairy farms are dominant in developing countries? What sort of farming systems will predominate in future? Discuss the practical constraints for development of large scale commercial dairy farms in Bangladesh. 10.0

2. Briefly discuss the methods for sustainable development of dairy herds under Bangladesh perspective. How should you attempt to improve the reproductive efficiency of dairy cows in Bangladesh? 10.0

3. What are the most important causes for calf mortality in commercial dairy herds. How does neonatal care influence age at first calving and calving interval in commercial dairy farms? 10.0

4. Is buffalo farming prospective for Bangladesh? Why buffalo populations are decreasing day by day? How should you optimize green forage intake for dairy buffaloes under severe scarcity condition? 10.0

5. What are the potential threats for large ruminant production in Bangladesh? Is this the same scenario persisting elsewhere in the globe? How should we overcome them? 10.0

Department of Animal Science & Nutrition
MS in Animal Science
Semester Final Examination 2017
Semester: January-June 2017
Subject: Livestock Farming and Climate Change
Course code: LFC-601

Total marks: 40 **Total time: 2 hours**

Figures in the right margin indicate full marks.

Answer to the following questions (any five):

1.	a)	What do you mean by integrated farming system? Write down the importance, components and challenges of integrated farming system.	3.0
	b)	Describe about the determining factors of different integrated farming system.	5.0
2.	a)	What do you mean by green house gas emission and it's impact on civilized world? Shortly describe about the emissions by different species of animal.	3.0
	b)	Shortly describe about the mitigation strategies of green house gases.	5.0
3.	a)	Show the enterprises that may be linked for IFS in different agro-ecosystem.	3.0
	b)	Shortly describe about the livestock grazing and soil carbon sequestration.	5.0
4.	a)	Shortly describe about different types of integrated farming system.	3.0
	b)	Shortly describe about the impact of climate change on livestock production and livestock diseases.	5.0
5.	a)	Shortly describe about the effect of climate change on livestock and its productivity.	3.0
	b)	What is biodigester? Write down the advantages of using a biodigester. Shortly describe about the installation of Polyethylene biodigester.	5.0
6.	a)	Shortly describe about the enteric methane emission from livestock.	3.0
	b)	Write down the activity of the rumen and its micro-organisms. What do you know about the genetic manipulation of microbes to reduce enteric methane emission?	5.0

-----The end-----

Chittagong Veterinary and Animal Sciences University

M S in Animal Science

January-June Semester Final Examination 2017

Course title: Animal Reproduction

Course Code: ARP-601

Total marks: 40

Time: 2 hour

Answer any 2 (one) questions from the following. Values are indicated in the right margin in each question.

1. a) Distinguish between sexual and asexual reproduction. State role reproduction in animal improvement. **5**
   b) Draw and label a reproductive organ of a cow. Describe the process of gametogenesis. **7**
   c) Define hormone. Write down the functions of hormones those are involved in estrus and pregnancy for cow. **8**

2. a) State the characteristics of bull semen. Indicate the semen deposition site, doses, and number of motile sperm of different species. **5**
   b) What is puberty? How will you identify the maturity of a male and female goat? List the age and weight of puberty of different farm animals. **7**
   c) Write down the principle of semen preservation. Describe the process of cryopreservation of bull semen with its advantages. **8**

3. a) Write in brief the different steps of embryo transplantation with its genetic implication. **10**
   b) What is sex selection? How will you differentiated sex of embryo using PCR technique. **6**
   c) Write short note on IVF and sex chromosome. **4**

Department of Animal Science and Nutrition
Chittagong Veterinary and Animal Sciences University
MS in Animal Science
Semester Final Examination (January-June 2017)
Course Title: Small Ruminant Production (Theory)
Course code: SRP-601, Full marks: 40, Time: 2 hours

Figures in the right margin indicate full marks. Answer any four (4) questions.

1. Calculate the daily energy and protein requirements of a lactating non-pregnant doe having body weight of 30 kg and producing 1.5 litters milk per day. The nutrients composition of goat milk is as follows: 10.0

   Fat: 3.5%, Protein: 3.1%, Lactose: 4.6%, Ash: 0.79%, Total Solids: 12%

2. State the standard care and management practices of pregnant doe and neonate kid. What measures should be taken during parturition of goat? 10.0

3. Discuss the physiology of adaptation of goat in wide range of the world. Prepare a strategic plan for the genetic improvement of Black Bengal Goat in Bangladesh. 10.0

4. Point out the salient features of reproductive physiology of sheep and goat. Briefly discuss the artificial regulations of reproduction of goat. 10.0

5. Prepare a schematic housing plan for fattening cum breeding Black Bengal Goat farm with standard measurements, characteristics and placement of houses. 10.0

Department of Animal Science & Nutrition
MS in Animal and Poultry Nutrition
Semester Final Examination 2017
Semester: January-June 2017
Subject: Feed Biotechnology
Course code: FBT-601

Total marks: 40 **Total time: 2 hours**

Figures in the right margin indicate full marks.

Answer to the following questions (any five):

1.	a)	Define biotechnology and feed biotechnology.	3.0
	b)	What are the applications of biotechnology in nutrition and feed utilization?	5.0
2.	a)	Write a short note on probiotics and prebiotics.	3.0
	b)	Write down the mode of action of probiotics and prebiotics in the gut to enhance the growth and immunity of the host animal.	5.0
3.	a)	Define metabolic modifier and toxin binder.	3.0
	b)	Explain "Reintroduction of natural and genetically modified microbes to the rumen.	5.0
4.	a)	Shortly describe about the fumarate reducing bacteria.	3.0
	b)	Briefly describe about the protection of protein, amino acids and fat in ruminants.	5.0
5.	a)	Write down the name of different phytochemicals/bioactive compounds present in different tree leaves and by products with specific functions.	3.0
	b)	What are the anti-nutritional factors available in different feed stuffs? Shortly describe about the importance and application of low phytate corn and low oligosaccharide soybean.	5.0
6.	a)	Shortly describe about the enteric methane emission from livestock.	3.0
	b)	Write down the activity of the rumen and its micro-organisms. What do you know about the genetic manipulation of microbes?	5.0

-----The end-----

Department of Animal Science and Nutrition
Chittagong Veterinary and Animal Sciences University
MS in Animal and Poultry Nutrition
Semester Final Examination (January-June 2017)
Course Title: Therapeutic Nutrition (Theory)
Course code: TPN-601, Full marks: 40, Time: 2 hours

(Figures in the right margin indicate full marks. Answer any four (4) questions of the following where question no. 1 is compulsory. ***All questions must be answered chronologically****. Split answers are discouraged)*

1. (a) Mention the general principles to be followed while formulating therapeutic diet. How can you classify the different therapeutic diets? 5.0

   (b) Suppose you have been appointed as a veterinary surgeon in an upazila veterinary hospital (UVH). A sick dairy cow has been taken to your hospital with a history of recent calving and sudden drop in appetite, milk production. Auscultation of the cow revealed a splashing sound. Diagnose the case and give line of treatment. 5.0

2. (a) What are the fates of impaired carbohydrate metabolism in ruminants? Explain that impaired metabolism is often associated with dietary nutrients supplied to animals. 6.0

   (b) Which facts you should consider while performing compton metabolic profile test? Elaborate the common nutritional strategies to prevent metabolic disease incidence in animals. 4.0

3. (a) Briefly describe the etiology, pathogenesis, clinical signs of hepatic lipidosis. Give a line of treatment with special emphasis on therapeutic diet for the affected cow. 5.0

   (b) In which cases we can suggest parenteral nutrition? Mention the nutritional management of calves during birth to four months of age. 5.0

4. (a) Are there any effects of tropical climate on feed production? How can you categorize the feed resources available for livestock production in tropical countries? 6.0

   (b) Briefly describe the strategies and management to be followed in feeding poultry under tropical climate condition. 4.0

5. (a) What are the different factors affecting digestibility of nutrients in animals? 3.0

   (b) Why do you think markers are suitable for partitioning digestion of feed in ruminants? Write down the properties of an ideal marker. Sketch the diagram of protein partitioning in animal body. 7.0

Ms in Animal and Poultry Nutrition
Semester Final Examination (January to June 2017)
Sub: Nutrition Studies and Research (NSR- 601)
Full Marks: 40; Time: 2 Hours

Answer **any four** questions from the following. Figures in the right margin indicate full marks.

1. a) What is bypass nutrient? Discuss the importance of bypass protein in high yielding dairy cow. 5

   b) Define Feed intake? How can you calculate the feed intake of a grazing animal at the grassland? 5

2. a) What do you mean by digestibility? Discuss the factors that affect digestibility. 5

   b) What is marker? Briefly discuss the uses for marker in partitioning digestion of ruminants. 5

3. a) What is balanced ration? What are the factors should be considered for formulating a dairy cow ration? 5

   b) Formulate a daily ration chart for a dairy cow using available feed ingredients which having body weight 300 kg offering milk 15 litres per day containing 4.2% milk fat. 5

4. a) Briefly discuss the role of microbes in fibre digestion of ruminant. 5

   b) "Composition of milk varied upon the offered feed" – Justify. 5

5. a) What is fermentation? Discuss primary & secondary fermentation in ruminant. 5

   b) What is feeding standard? What do you know about the feeding standard for growth of cattle? 5

6. Write short notes (any 4) on: 4x2.5 = 10

   a) Partitioning of energy,
   b) UDP vs RDP,
   c) Feed additives,
   d) Basal Metabolism,
   e) Fermentation vs decomposition,
   d) Partitioning of dietary protein

Department of Animal Science and Nutrition
Chittagong Veterinary and Animal Sciences University
MS in Animal and Poultry Nutrition
Semester Final Examination (January-June 2017)

Course Title: Modern Techniques in Nutrition Studies (Theory)

Course code: MTN-601, Full marks: 40, Time: 2 hours

Figures in the right margin indicate full marks. Answer any four (4) questions. There is no room to consider fragmented answers!

1. "Near Infra Red Spectroscopy (NIRS)"-Is it really a critical breakthrough or hypothetical dream in the history of animal nutrition? What are calibration drawbacks of NIR compared to traditional wet chemistry and how do you think to resolve them? 10.0

2. Despite spectrophotometric techniques, why has atomic absorption spectroscopy been evolved in the field of feed industry? What are the principle, merits and demerits of this technique? 10.0

3. What are the implications of *in vitro* Menke's gas technique in ruminant research? How should you proceed to estimate degradability of organic matter (DOM) for sugarcane bagasse re in Menke's gas technique? 10.0

4. Why dacron bag technique is neither an *In vivo* nor an *In vitro* technique? Discuss the implications and drawbacks of the technique? Under existing set up, *in vivo*, *in vitro* or *in sacco* - which technique will be more feasible for CVASU? 10.0

5. Is bomb calorimetry inevitable for modern nutrition research? What are the available different types of bomb calorimetry and their bottlenecks? How would you evaluate calf manure using bomb calorimetry? 10.0

6. How does respiration calorimetry work? What are the implications, merits and demerits of respiration calorimetry? Why is ME mostly welcomed for cattle feed formulation in developing countries? 10.0

Chittagong Veterinary and Animal Sciences University
Department of Physiology, Biochemistry and Pharmacology
MS in Biochemistry, January-June Semester, Final Examination-2016
Course Title: Intermediary Metabolism and Regulation (Theory)
Course Code: IMR-601
Full marks: 40; Time: 2 hours

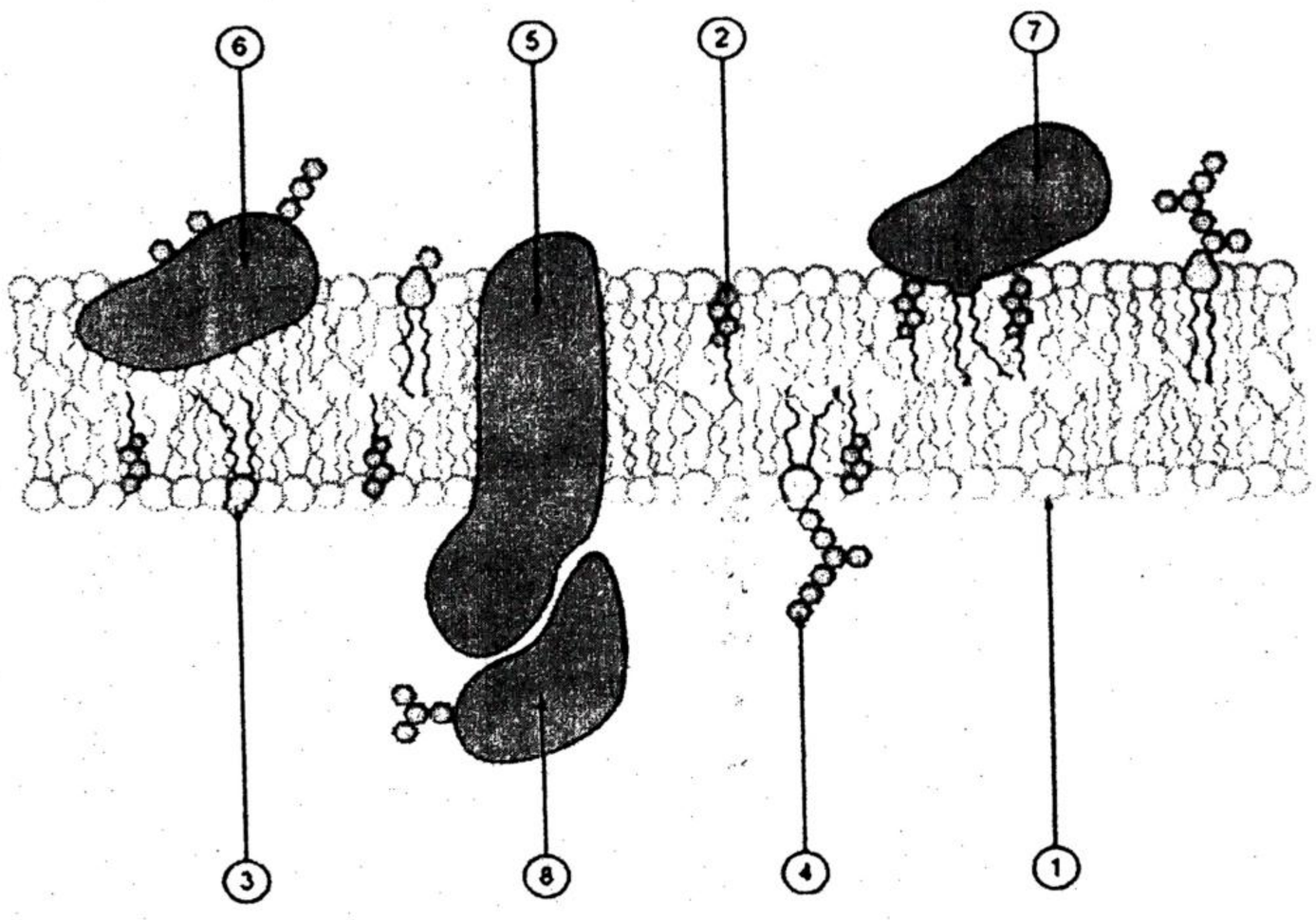
Figures in the right margin indicate full marks. Answer any four (4) from the following questions.

1.	**a.**	What is photosynthesis? Write down the specific site of photosynthesis in plant? Briefly describe the light independent phase of photosynthesis?	5
	b.	Define gluconeogenesis? How propionic acid is converted into glucose?	5
2.	**a.**	Which pathway is called as central metabolic pathway? Draw the line diagram of EMP pathway?	5
	b.	Why TCA cycle is called an open cycle? Write down the energy involvement steps of TCA cycle?	5
3.	**a.**	Enlist some plants in which crassulacean acid metabolism occur? Write down the reactions of CAM cycle?	5
	b.	Define oxidative phosphorylation? Briefly describe the chemiosmotic hypothesis for oxidative phosphorylation with diagram?	5
4.	**a.**	How long chain fatty acids enter into mitochondria through mitochondrial membrane? Calculate total number of energy after complete oxidation of one mole stearic acid?	5
	b.	Enlist some raw materials of urea cycle? Show the relationship between urea cycle and krebs cycle?	5
5.	**a.**	Draw the structure of cholesterol nucleus? Briefly describe the biosynthesis process of an animal sterol?	5
	b.	Briefly describe the process of glyoxylate cycle in plants? Enlist some differences between glyoxylate cycle and TCA cycle?	5

Chittagong Veterinary and Animal Sciences University
MS in Biochemistry
Session: January-June Semester'2016
Final Examination
Course Title: Advanced Cell Biology
Course code: ADB-601
Total marks: 40 Time: 2 hour

[N.B.: The figures in the right margin indicate full marks. All questions are of equal value. Answer any four questions.]

1.a) Write down the name & function of following membrane bound molecules. 1 x 8 = 8



b) Write short notes on following protein types: 1 x 2 = 2

a). Antiporter, ii) Symporte

2. a. Discuss how unicellular organism mediates their body physiology? Cytosol is an important part to maintain organelle functions. Explain. 2 + 3 =5

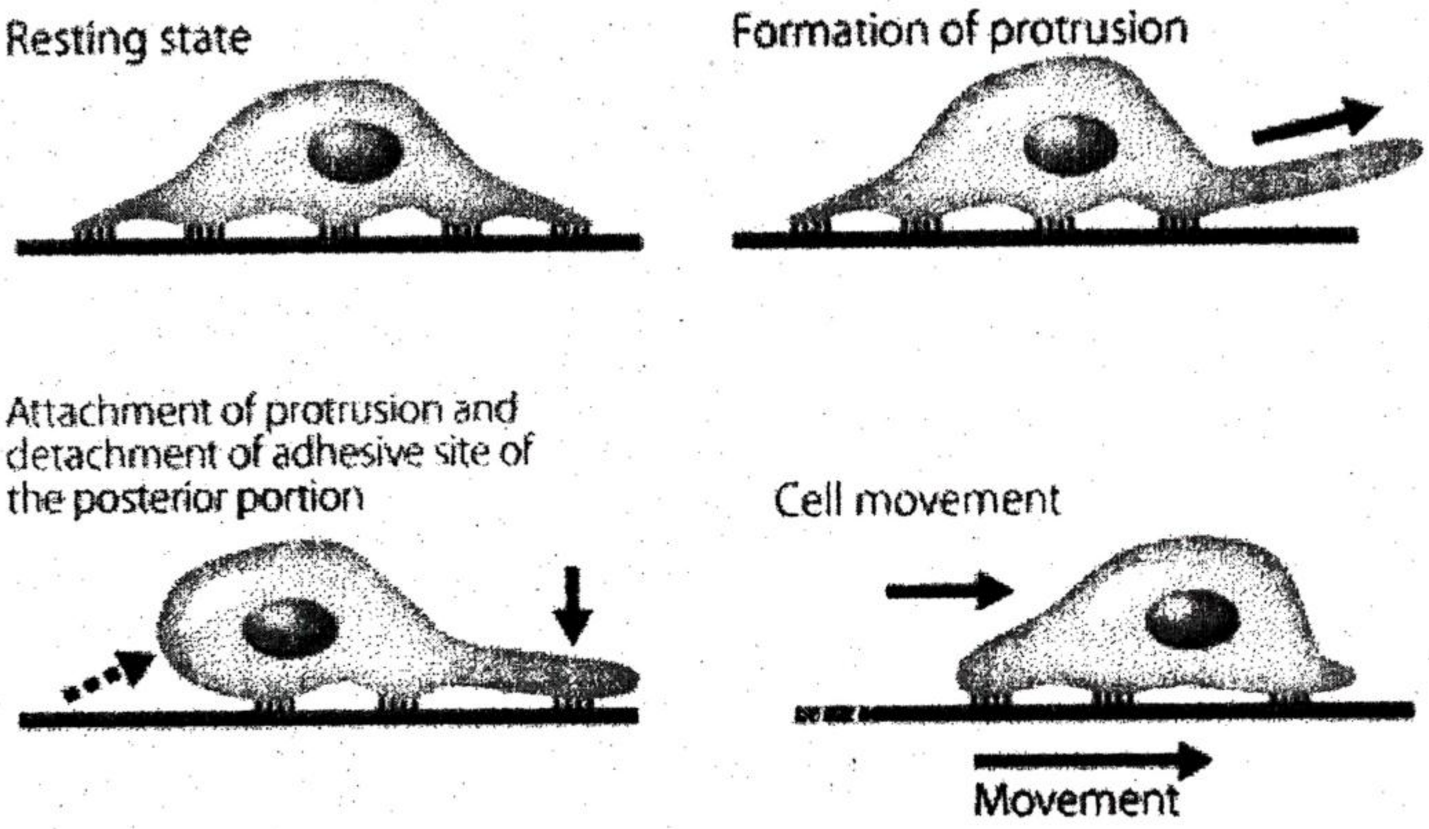
b. Write short notes on endomembrane organelle system. Energy related organelles are independent and self-sufficient. Explain. 2 +3 =5

3. Mictotubules are essential factor for formation of cytoskeleton. Explain. How do Dynamic microtubules mediate the direction of cellular movement? What are the roles of stable microtubules in this process? Take support from following figure: 3 + 4 + 3 = 10

Chittagong Veterinary and Animal Sciences University
MS in Biochemistry
Session: January-June Semester'2016
Final Examination
Course Title: Principle of Biochemical Techniques
Course code: PBT-601
Total marks: 40 Time: 2 hours

NB: Answer any eight (8) the following questions. Figure in the right margin indicates full marks.

1. What is chromatography? Classify the chromatographic techniques based on mobile phase. Mention the applications of these techniques. **1+2+2=5**
2. Differentiate between any **two (2)** of the following: **2.5×2=5**
   a. Mobile phase vs Stationary phase
   b. Polar solvent vs Non-polar solvent
   c. Normal phase vs Reverse phase
3. What is HPLC? Draw and level the instrumentation technique of HPLC machine. **1+4=5**
4. Define cell culture. Classify cell culture based on their appearance. **1+4=5**
5. a. Define the following term: **1×3=3**
   (i) Primary cell culture
   (ii) Cell line
   (iii) Cell strain
   b. Differentiate between the finite and continuous cell line. **2**
6. What is electrophoresis? Differentiate between paper electrophoresis and gel electrophoresis. **1+4=5**
7. Write short notes on the following: **2.5×2=5**
   a. Iso-electric focusing
   b. Ultracentrifugation
8. Define PCR? Write down the application of PCR. **1+4=5**
9. What is recombinant DNA technology? Write down the basic principle of recombinant DNA technology. **1+4=5**
10. Write down the uses on the following techniques: **1×5=5**
    (i) Southern blot
    (ii) RFLP
    (iii) RT-PCR
    (iv) In situ hybridization
    (v) Northern blot



4. How does cell mediates intracellular peptide/protein secretion? How DBP mediates genetic changes in this secretion process? 3 + 3 + 4 =10

   Differentiate between autocrine & paracrine secretion process.

5. What are the roles of CDKs in following phase of cell cycle? 2 x 5 = 10
   Go, G1, M, S, G2
6. Discuss the role of following protein in maintaining cellular homeostasis: 2 x5 = 10

   i). CDK ii), ERK1/2 iii). Myc iv) NF-kB v) TGF-B

Chittagong Veterinary and Animal Sciences University
MS in Biochemistry
Session: January-June Semester'2016
Final Examination
Course Title: Advanced Molecular Biology
Course code: AMB-601
Total marks: 40 Time: 2 hour

[N.B.- The figures in the right margin indicate full marks. All questions are of equal value. Answer any five questions.]

1.a)	What do you mean by post-transcriptional gene silencing?	2
b)	Describe the similarities and differences between miRNA & SiRNA.	2
c)	Describe the role of following in the generation of miRNA:	1.5x4=6
	i) RNA polymerase II; ii) DGCR8; iii) exportin 5 and iv) TRBP	
		= 10
2.a)	Why a map is an important aid to genome sequencing?	3
b)	Why are not genes ideal markers for gene mapping? What are the DNA markers used for genetic mapping?	4+1=5
c)	"Linkage analysis is the basis of genetic mapping" – explain.	2
		= 10
3.a)	What measures could be taken for fine-scale physical mapping by FISH?	3
b)	What advantage do clone libraries have over radiation hybrid panels for STS mapping?	3
c)	How can the problems of repeat sequences be avoided during sequence assembly in whole genome shotgun sequencing?	4
		= 10
4. a).	Proteome plays crucial role in genomic alteration. Explain.	2
b).	Pattern of genomic expression can not confirm their function. Why?	2
c).	Number of genes in cell never determinant of qualitative or quantitative value of protein.	3
d).	How are the following cellular functions involved in proteomic diversity?	1 x 3 = 3
	i) Alternative splicing, ii). Proteomic cleavage, iii). Poly adenylation	
		= 10

5. a). How does p53 may be modified in cellular process? Post translational modification of p53 protein tune it's shape for cellular function. Explain. 2 + 2

b). Write down the mood of p53 in following cellular condition 3 x 2=

i). Proliferative stage, ii). Metastasis, iii). Cellular Homeostasis 6 = 10

6. 2D GE helps to screen exact target to avoid non specific proteins. Explain. What is the principle of 1DGE? 2+1 ±3 1 x 7

Write down the application of following bio-tools:

i) IntAct ii). tblastx, iii). tblastn, iv). Uniport, v). Ensembl vi) NCBI data base vii) Blastn = 10

Chittagong Veterinary and Animal Sciences University
Department of Physiology, Biochemistry and Pharmacology
MS in Pharmacology January-June Semester Final Examination-2016
Course Title: General Pharmacology
Course Code: GPH-601
Total Marks: 40.0; **Time:** 2 hours

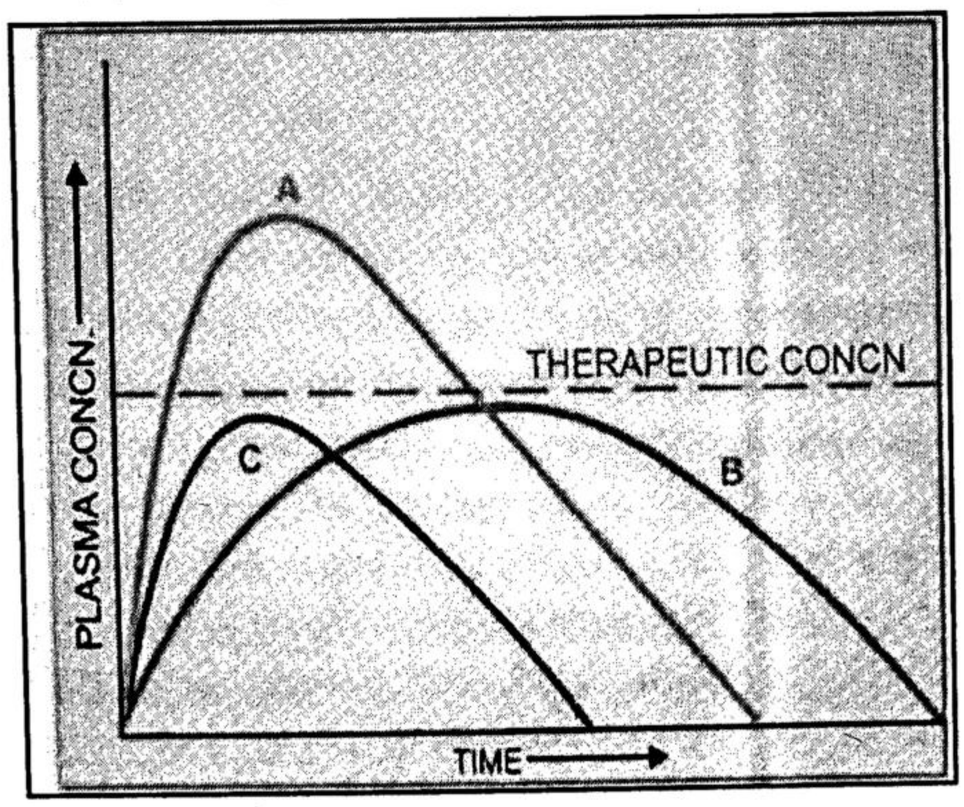
Figures in the right margin indicate full marks. Answer any ***Four (4)*** *questions from the followings:*

1. a) Define Clinical Pharmacology. How will you differentiate between pharmacy and pharmacology? 3.0
   b) Which of the following statement concerning drug receptor is more preferable- 3.0
      i) Drugs cannot act unless they are first bound to a receptor
      ii) A drug can act as an antagonist even if it is bound to a drug receptor
      Explain your opinion.
   c) What is signal transduction? Briefly explain the transduction mechanism of a drug. 4.0

2. a) Schematically depict the whole pharmacological processes of a drug. 2.0
   b) How will you differentiate drug from medicine? Write down the steps to improve a rational drug prescribing in a prescription. 4.0
   c) What are the unwanted effects and adverse drug reactions in human body? 4.0

3. a) Explain the factors influenced the drug distribution in animal body. 3.0
   b) Define $t_{1/2}$. Suppose, A 20kg dog is dosed with 50mg of drug X. If the half life of drug is 90 minutes. How long will it take for the animal to have less than 1mg of the drug remaining in the body? 3.0
   c) What do you mean by "Biotransformation of a drug"? Discuss comparatively between synthetic and non-synthetic reaction. 4.0

4. a) Illustrate the term drug clearance and drug accumulation. 3.0
   b) Discuss about the parameters should follow in a dose-response relationship. 3.0
   c) What is bioavailability of a drug? Clarify the figure indicating bioavailability differences between 3 preparations of a drug containing the same amount. 4.0



5. a) What are the major targets of drug action? 1.0
   b) Write a short note (any three): 9.0
      i) Drug interaction
      ii) Pharmacopeia
      iii) Second messenger
      iv) Therapeutic Index

Chittagong Veterinary and Animal Sciences University
Department of Physiology, Biochemistry and Pharmacology
MS in Pharmacology January-June Semester Final Examination-2016
Course Title: General Toxicology
Course Code: GTL-601
Total Marks: 40.0; **Time:** 2 hours

Figures in the right margin indicate full marks. Answer any ***Four (4)*** *questions from the followings:*

1. a) Define toxinology. Justify the implications of forensic and regulatory toxicology in medical science. 3.0
   b) Classify the toxicant on the basis of frequency and duration of exposure and toxicity potential. 3.0
   c) Write down the mechanisms of toxicity in relation to a toxicant. 4.0

2. a) Define residual poisoning. What is the metabolic fate of a toxin? 2.0
   b) What is LD_{50}? How LD_{50} used to evaluate the extent of toxicity of toxicant in the body? 3.0
   c) Explain the term "Universal antidote"? How will you build up a toxicological laboratory for maintaining proper diagnostic protocols? 5.0

3. a) List the factors that influencing the toxicity of nitrate in cattle. What is the common mechanism of nitrate poisoning in cattle? 4.0
   b) Differentiate nitrate poisoning from other common toxicant which causes haemo-toxicity? 3.0
   c) What is Toxaemic Jaundice? How will you diagnose and manage the case? 3.0

4. a) Now-a-days, how human are exposed to lead poisoning? What are the symptoms you observed on that case? Write about the line of treatment of it. 5.0
   b) How will you diagnose chronic arsenic poisoning in human? Write down the clinical management of that case. 5.0

5. a) Define hazard. 1.0
   b) Write short note (any three): 9.0
      i) Blind staggers
      ii) Teart disease
      iii) Common salt poisoning
      iv) Physico-chemical properties of toxicant

January-June MS in Pharmacology Final Examination-2016
Department of Physiology, Biochemistry and Pharmacology
Faculty of Veterinary Medicine
Chittagong Veterinary and Animal Sciences University
Course Title: Chemotherapy; Course code: CHT-601
Total Marks: 40; Time: 2.00 hours

Answer any four (4) questions from the following:

Q1.	a. Write down the mechanism of action of potentiated sulfonamides and penicillin.	5.0
	b. What are the unwanted effects of sulfonamides and penicillin on host? Write down the precaution of them.	5.0
Q2.	a. Define fluroquinolones. Write down the mechanism of action and clinical application of ciprofloxacin.	5.0
	b. Write down the mechanism of action of tetracycline. Why tetracycline is contraindicated to production and early life of development.	5.0
Q3.	a. Write down the mechanism of action of Gentamycin and Streptomycin.	5.0
	b. Write down the clinical application of Griseofulvin, Amphotericin-B and Nystatin with doses.	5.0
Q4.	a. Write down the mechanism of action of Acyclovir and Gancyclovir.	5.0
	b. Write down the clinical application of Amantadine and Ribavirin with doses.	5.0
Q5.	Write short notes on (any four): 2.5x 4 a. Antiseptics and disinfectants b. Chloramphenicol c. Macrolides d. Enrofloxacin e. Cephalosporin f. Metronidazole	10

Chittagong Veterinary and Animal Sciences University

Department of Physiology, Biochemistry & Pharmacology

MS (Pharmacology)

Final Examination-2016

January – June Semester

Sub: Food Toxicology & Public health (FTP-601)

Total Marks: 40 Time: 2 hours

Answer the following questions (Any four):

1. a. Define Health, Hygiene & Public health. 3
   b. What do you mean by zoonoses & zoonotic disease? 2
   c. Make a list of at least ten zoonotic disease with their principal animal's involved, probable means of spread to humans & clinical manifestations in humans. 5
2. a. Differentiate food & feed. How food contamination occur generally. Identify the sources of food contamination and distinguish between them. 4
   b. Enumerate the sources of bacterial contaminations of pediatric milk & milk products. 3
   c. What causal organisms must act to cause spoilage of an undamaged shell egg? 3
3. a. Define & classify food borne disease and present them in a schematic manner. 4
   b. Outline briefly the epidemiological factors that influence the type of food-borne hazards. 3
   c. What do you mean by disease outbreak? Mention the major categories considered in developing an outbreak case definition. 3
4. a. Differentiate food security & food safety. Write down the food adulteration & public health issues in Bangladesh. 5
   b. What are the food safety basic laws? How fresh milk is usually adulterated & how artificial milk is being prepared? 5
5. **Short note : (any five)** 2 x 5 = 10

   (a) Melamine in Food; (b) Ready to eat foods; (c) Tobacco poisoning;

   (d) Antibiotic free low cholesterol egg; (e) Aquatic Biotoxins; f) HACCP

Chittagong Veterinary and Animal Sciences University

Department of Physiology, Biochemistry & Pharmacology

MS (Pharmacology)

Final Examination-2016

January – June Semester

Sub: Phytotoxicology (PTL-601)

Total Marks: 40 Time: 2 hours

Answer the following questions (Any four):

1.	a.	Define toxicology, phytotoxicology & zootoxicology? Why poison in plant?	3
	b.	What do you mean by toxic principles & what are the toxic principle of Dhutara, Karabi & Rali with their scientific name.	3
	c.	Describe common diagnosis & treatment protocol of plant poisoning.	4
2.	a.	What do you mean by toad stools? How many spp. of mashroom causes poisoning for human. Write their common name, genera, Spp. Family, Toxic constituents syndrome & treatment any five of them.	5
	b.	Make a list of poisonous plants which effects nervous system blood circulation & causes stonmatitis in small animals .	5
3.	a.	How marijuana. Hemp & hashish cause poisoning in human beings write down the poisonous principal, clinical signs, treatment & prevention of them.	5
	b.	Define cyanogenesis? Write down the sources, m/a, Pathogenesis, Lab diagnosis and treatment of cyanide poisoning.	5
4.	a.	List the estrogenic poisoning plants. Write down toxic constituent, m/a, clinical sign, diagnosis & treatment of estrogenic plant poisoning.	5
	b.	Define & classify photo sensitization. List of photosensitizing agents, toxic constituent, m/a clinical sign, diagnoses & treatments of photosensitization.	5
5.	a.	What do you mean by arsenicals, arsenides, arsenates, arsine a arsenates? Write down the physical & chemical properties sources of exposure, primary symptoms, diagnosis and treatment of arsenic poisoning in livestock.	5
	b.	How you differentiate Arsenic poisoning between human and animal health? How arsenic effect on the body enzymatic system?	5